The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A vehicular electrochromic rearview mirror system, comprising:

at least one electrochromic rearview mirror assembly having an electrochromic reflective element, said electrochromic reflective element assuming a partial reflectance level in response to a signal applied thereto;

a drive circuit applying a drive signal to said electrochromic reflective element establishing a partial reflectance level thereof, said drive circuit including a digital controller and a switching power supply controlled by said digital controller producing said drive signal.

2. The vehicular electrochromic rearview mirror system in claim 1 wherein said switching power supply comprises a switching step-down converter.

3. The vehicular electrochromic rearview mirror system in claim 2 wherein said switching power supply comprises a buck converter.

4. The vehicular electrochromic rearview mirror system in claim 3 wherein said switching power supply comprises an impedance device and at least one electronic switch in series electrical connection between said electrochromic reflective element and a voltage potential.

5. The vehicular electrochromic rearview mirror system in claim 4 wherein said impedance device has energy storing capability.

6. The vehicular electrochromic rearview mirror system in claim 4 wherein said impedance device comprises an inductor.

7. The vehicular electrochromic rearview mirror system in claim 4 wherein said voltage potential is in the range from 5 volts DC to 16 volts DC.

8. The vehicular electrochromic rearview mirror system in claim 7 wherein said voltage potential is approximately 8 volts DC.

9. The vehicular electrochromic rearview mirror system in claim 4 wherein said at least one electronic switch is operated in a saturated mode.

10. The vehicular electrochromic rearview mirror system in claim 4 wherein said at least one electronic switch is operated during steady-state reflectance levels at a duty cycle less than or equal to 65%.

11. The vehicular electrochromic rearview mirror system in claim 10 wherein said at least one electronic switch is operated during steady-state reflectance levels at a duty cycle that operates in a range of 0% to 50%.

12. The vehicular electrochromic rearview mirror system in claim 4 wherein said at least one electronic switch is one of a bipolar transistor and a field effect transistor.

13. The vehicular electrochromic rearview mirror system in claim 4 wherein said at least one electronic switch comprises a bipolar transistor.

14. The vehicular electrochromic rearview mirror system in claim 4 wherein said drive circuit monitors voltage across said electrochromic reflective element and controls said at least one electronic switch at least in part as a function of the monitored voltage.

15. The vehicular electrochromic rearview mirror system in claim 14 wherein said drive circuit periodically monitors voltage across said electrochromic reflective element at a same general time relative to operation of said switch.

16. The vehicular electrochromic rearview mirror system in claim 15 wherein said drive circuit periodically monitors voltage across said electrochromic reflective element when said at least one electronic switch is open.

17. The vehicular electrochromic rearview mirror system in claim 4 including another impedance device in series electrical connection with said at least one electronic switch and said impedance device to limit voltage across said electrochromic cell should said at least one electronic switch remain in a closed state.

18. The vehicular electrochromic rearview mirror system in claim 4 including another electronic switch between said impedance device and another voltage potential to conduct current in said impedance device when said at least one electronic switch is not conducting.

19. The vehicular electrochromic rearview mirror system in claim 18 wherein said another switch comprises one of a diode, a bipolar transistor and a field effect transistor.

20. The vehicular electrochromic rearview mirror system in claim 18 wherein said another switch comprises a diode.

21. The vehicular electrochromic rearview mirror system in claim 18 wherein said another switch comprises a bipolar transistor.

22. The vehicular electrochromic rearview mirror system in claim 1 wherein said digital controller comprises a microcomputer.

23. A vehicular electrochromic rearview mirror system, comprising:

a plurality of electrochromic rearview mirror assemblies and a plurality of electrochromic reflective elements, each associated with one of said electrochromic rearview mirror assemblies, wherein each of said electrochromic reflective elements assumes a partial reflectance level in response to a signal applied thereto;

a drive circuit applying a drive signal to each of said electrochromic reflective elements, said drive circuit comprising a digital controller, a master drive circuit responsive to said digital controller to apply a first drive signal to one of said electrochromic reflective elements, and a slave drive circuit responsive to said digital controller to apply a second drive signal to a second of said electrochromic reflective elements, said second drive signal derived from said first drive signal.

24. The vehicular electrochromic rearview mirror system in claim 23 wherein said master drive circuit comprises a switching power supply.

25. The vehicular electrochromic rearview mirror system in claim 23 wherein said slave drive circuit comprises a proportional controller.

26. The vehicular electrochromic rearview mirror system in claim 23 wherein said master drive circuit comprises a first electronic switch and said slave drive circuit comprises a second electronic switch.

27. The vehicular electrochromic rearview mirror system in claim 26 wherein said controller operates said first electronic switch at a first repetition rate and said second electronic switch at a second repetition rate, one said repetition rate at a high end of human hearing frequencies and another said repetition rate at a low end of human hearing frequencies.

28. The vehicular electrochromic rearview mirror system in claim 27 wherein said first repetition rate is at a high end of human hearing frequencies and said second repetition rate is at a low end of human hearing frequencies.

29. The vehicular electrochromic rearview mirror system in claim 26 wherein said controller operates said first electronic switch during steady-state reflectance levels at a duty cycle of less than or equal to 65%.

30. The vehicular electrochromic rearview mirror system in claim 29 wherein said controller operates said second electronic switch during steady-state reflectance levels at a duty cycle greater than or equal to 65%.

31. The vehicular electrochromic rearview mirror system in claim 30 wherein said controller operates said first electronic switch during steady-state reflectance levels at a duty cycle in a range of between 0% and 50%.

32. The vehicular electrochromic rearview mirror system in claim 31 wherein said controller operates said second electronic switch during steady-state reflectance levels at a duty cycle in a range of between 75% and 100%.

33. The vehicular electrochromic rearview mirror system in claim 23 wherein said switching power supply comprises a buck converter.

34. The vehicular electrochromic rearview mirror system in claim 33 wherein said switching power supply comprises an impedance device and an electronic switch in series electrical connection between said electrochromic reflective element and a voltage potential.

35. The vehicular electrochromic rearview mirror system in claim 34 wherein said impedance device has energy storing capability.

36. The vehicular electrochromic rearview mirror system in claim 34 wherein said impedance device comprises an inductor.

37. The vehicular electrochromic rearview mirror system in claim 34 wherein said voltage potential is in the range from 5 volts DC to 16 volts DC.

38. The vehicular electrochromic rearview mirror system in claim 37 wherein said voltage potential is approximately 8 volts DC.

39. The vehicular electrochromic rearview mirror system in claim 26 wherein said first and second electronic switches are comprised of transistors.

40. The vehicular electrochromic rearview mirror system in claim 39 wherein said first and second electronic switches comprise one of a bipolar transistor and a field-effect transistor.

41. The vehicular electrochromic rearview mirror system in claim 26 wherein said first and second electronic switches are operated in saturated modes.

42. The vehicular electrochromic rearview mirror system in claim 26 wherein said drive circuit monitors voltage across at least one of said reflective elements and controls at least one of said first and second switches at least in part as a function of monitored voltage.

43. The vehicular electrochromic rearview mirror system in claim 26 wherein said drive circuit monitors voltage across said one of said electrochromic reflective elements and controls said first electronic switch at least in part as a function of the monitored voltage.

44. The vehicular electrochromic rearview mirror system in claim 43 wherein said drive circuit monitors voltage across said second of said electrochromic reflective elements and controls said second electronic switch at least in part as a function of the monitored voltage.

45. The vehicular electrochromic rearview mirror system in claim 26 wherein said drive circuit monitors voltage across said second of said electrochromic reflective elements and controls said second electronic switch at least in part as a function of the monitored voltage.

46. The vehicular electrochromic rearview mirror system in claim 23 wherein said one of said electrochromic reflective elements is associated with an exterior electrochromic rearview mirror assembly.

47. The vehicular electrochromic rearview mirror system in claim 46 wherein said second of said electrochromic reflective elements is associated with an interior electrochromic rearview mirror assembly.

48. The vehicular electrochromic rearview mirror system in claim 46 wherein said second of said electrochromic reflective elements is associated with another exterior electrochromic rearview mirror assembly.

49. The vehicular electrochromic rearview mirror system in claim 23 wherein said one of said electrochromic reflective elements is associated with an interior electrochromic rearview mirror assembly.

50. A vehicular electrochromic rearview mirror system, comprising:

at least one electrochromic rearview mirror assembly having an electrochromic reflective element, said electrochromic reflective element assuming a partial reflectance level in response to a signal applied thereto;

a drive circuit applying a drive signal to said electrochromic reflective element, said drive circuit comprising an impedance device, at least one first electronic switch electrically series connecting said impedance device and said electrochromic reflective element with a first voltage potential and at least one second electronic switch electrically series connecting said impedance device and said electrochromic reflective element with a second voltage potential, said at least one first electronic switch and said at least one second electronic switch

alternatingly operated to apply a drive current through said impedance device and said at least one electrochromic reflective element.

51. The vehicular electrochromic rearview mirror system in claim 50 wherein said impedance device has energy storing capability.

52. The vehicular electrochromic rearview mirror system in claim 51 wherein said impedance device comprises an inductor.

53. The vehicular electrochromic rearview mirror system in claim 50 wherein said at least one second electronic switch comprises one second electronic switch that is operated according to a PWM sequence with said at least one first electronic switch to supply charge to the at least one electrochromic reflective element and another second electronic switch that is operated to drain current from said at least one electrochromic reflective element.

54. The vehicular electrochromic rearview mirror system in claim 50 wherein said at least one second electronic switch comprises a second electronic switch that both is operated according to a PWM sequence with said at least one first electronic switch to supply charge to the at least one electrochromic reflective element and is operated by itself to drain current from said at least one electrochromic reflective element.

55. The vehicular electrochromic rearview mirror system in claim 50 including a digital control operating said at least one first electronic switch and said at least one second electronic switch.

56. The vehicular electrochromic rearview mirror system in claim 50 wherein said first voltage potential is on an order of magnitude of vehicle ignition voltage.

57. The vehicular electrochromic rearview mirror system in claim 56 wherein said drive signal is on an order of magnitude of less than vehicle ignition voltage.

58. The vehicular electrochromic rearview mirror system in claim 56 wherein said second voltage potential is vehicle chassis potential.

59. The vehicular electrochromic rearview mirror system in claim 50 wherein said at least one first electronic switch comprises one of a bipolar transistor and a field effect transistor.

60. The vehicular electrochromic rearview mirror system in claim 50 wherein said at least one second electronic switch comprises one of a diode, a bipolar transistor and a field effect transistor.

61. The vehicular electrochromic rearview mirror system in claim 60 wherein said at least one second electronic switch comprises a diode.

62. The vehicular electrochromic rearview mirror system in claim 60 wherein said at least one second electronic switch comprises a bipolar transistor.